

The environment has been shaped by both human and natural processes over thousands of years. A wide range of human activities have left their mark across the British Isles. The terrestrial, coastal and marine historic environment of Dorset has given us a snippet of past communities and lifestyles over the centuries. Evidence of this in Dorset includes traces of medieval field strips, World War II coastal defences and historic wrecks such as the 17th Century Swash Channel wreck in Poole harbour. Not only can we learn about past human activity but also about the natural environment itself such as sea level rise and climate change. Dorset's coastal features have been subjected to many significant changes caused by climate and sea level changes. To study this environment effectively, the role of the archaeologist has been paramount to excavating, studying and recording material.

An Integrated Approach – Terrestrial, Coastal and Marine

Terrestrial archaeological sites and landscapes have been studied in considerable detail for many years and this has resulted in a vast amount of information.

With the wealth of maritime archaeology off the Dorset coast and the advances of technology in the last decade, this has allowed for more archaeological sites to be investigated in further detail. These investigations have been integrated into terrestrial records. This in turn has developed the concept of taking a 'terrestrial' approach to archaeology in the coastal zone. The principle is that the same attention and protection should be given to terrestrial, intertidal and maritime sites. All that need change as the archaeologist and any other person involved moves down the shore are the techniques involved. There are possible advantages in working below high water mark, in terms of the degree of preservation of archaeological material. Organic objects, such as those made of wood and leather, usually decay on terrestrial sites but frequently survives underwater.

Terrestrial, Coastal and Marine Sites

Dorset is home to a wealth of archaeology, on land and in the sea. Below is a selection of examples of what can be found along the Dorset coastline.

Terrestrial:

The Weymouth Relief road has thrown up some huge archaeological finds in recent years with one of the most exciting finds in 2008 of a burial pit holding the remains of over 50 decapitated Vikings, during excavations for the new relief road. More information on this can be found at <http://www.dorsetforyou.com/390745>

A Bronze Age barrow cemetery stretches over 20km from White Horse Hill in Osmington to Chilcombe Hill is not considered to be one single entity but a large number of cemetery clusters.

St Catherine's Chapel, Abbotsbury was built in the first half of the 15th Century and is currently cared for by English Heritage. Set high upon a hill it has

become a prominent landmark for seafarers over the centuries. More information at <http://www.english-heritage.org.uk/daysout/properties/abbotsbury-st-catherines-chapel/history-and-research/>

The White Horse of Osmington Hill, Weymouth was constructed in 1808 and is looked after by the landowner and English Heritage, with Dorset County Council Archaeological Service and Dorset Countryside Ranger Service becoming involved with its maintenance. It is currently undergoing massive restoration work which started in 2009 with support from Dorset Ranger Services, Historical Environment Services, Dorset AONB Partnership, English Heritage and Natural England. Restoration of the White Horse was completed in 2012. More information can be found at http://www.osmingtonwhitehorse.info/?page_id=19

Coastal

The Weymouth and Portland area of the Dorset coastline was heavily defended during World War II. Portland was a strong naval base with British,

American and Canadian naval vessels gathering in the harbour in the lead up to the D-Day landings. Defences have included; Abbotsbury Defence Area, with anti-tank obstacles found situated on the Fleet at Reeds End, Bowleaze cove from the Riviera Chalet Hotel to Furzy cliff, seaward side of Chesters Hill and Overcombe to Weymouth. There are also 45 pill boxes. Three lie towards West Weymouth and the rest are located along Chesil beach. They consist of both Type 22 and Type 26 structures. The sites of 4 gun and searchlight batteries have also been identified.

Clavell Tower was built by the Rev. Thomas Richards Clavell of Smedmore in 1830 for use as an observatory and folly. In 2004, due to severe coastal erosion the tower was dismantled and re-built 25m back from the cliff. Clavell tower is now considered to be a significant landmark for walkers of the coastal path and also for people at sea. It is currently owned and cared for by the Smedmore estate and the Clavell Tower Trust. Further information can be found at <http://www.landmarktrust.org.uk/news/ClavellTower.htm>

Marine

The coastal waters off Dorset have become the final resting place of hundreds of vessels, not only ships but also 21 submarines, 151 documented military aircraft lost off Dorset and eight Valentine amphibious tanks in Poole Bay. Some of the more

famous wrecks popular with sport divers include the Kyarra and the M2. Each wreck has a story to tell and gives maritime archaeologists a well informed insight into ship design and usage at that particular time. Not only can this information be studied from wrecks but they can also provide valuable information on many other subjects from armament manufacture to dress design.

Maritime structures include those that were built originally below high water mark, such as the seventeenth century land reclamation banks to be found in the Fleet. These provide important evidence of the uses made of the intertidal and submarine environment.

There are also sites which were originally constructed above high water mark, but have been inundated through sea level changes. These are generally similar to sites found on land, but can be better preserved and provide important additional evidence through the survival of organic material.

Single finds are objects that do not appear to be associated with a particular wreck or structure are also discovered. An good example of this is a group of torpedoes and torpedo engines found in Weymouth Bay from the Whitehead works. They are the earliest torpedoes dating from the late nineteenth century, and have provided unique evidence of the development of this weapon.

Submerged landscapes are important because they contain information about sea level rise since the end of the last Ice Age, and they are likely to contain well preserved organic material. There are several areas of particular importance off the Dorset coast:

- Poole bay covers the drowned valley of the former Solent River.
- Chesil beach and the Fleet cover deposits dating from the early post-glacial, to Roman period.

Finally there are areas known as 'Submerged Forests', where the remains of trees are occasionally revealed at low water. They have been recorded at Bournemouth, West Bay, Charmouth. Work carried out at Charmouth has given a 12th century date for the site. More information at <http://www.dorsetforyou.com/21146>

The Regulators

International

 **ICOMOS Charter** The International Council on Monuments and Sites, has drawn up a charter for the *Protection and management of the Underwater Cultural Heritage* (1996) This aims to ensure the protection of underwater cultural sites, or their proper excavation, recording, conservation of the finds and publication. The UK is a member of ICOMOS.

United Nations Educational Scientific Cultural Organisation (UNESCO) Convention on the Protection of the Underwater Cultural Heritage

2001 came into force in 2009. This is a key legal instrument which protects all traces of human existence which lies underwater and has cultural or historical character. However, the UK is yet to ratify this convention as they objected to the conventions extension of mandatory protection to all shipwrecks over 100 years old. This conflicts with the Protection of Wrecks Act 1973 which only warrants protection to wrecks of 'historical, archaeological or artistic importance'. Information at <http://unesdoc.unesco.org/images/0012/001260/126065e.pdf> and <http://www.mcdonald.cam.ac.uk/projects/iarc/culturewithoutcontext/issue16/papa-sokal.htm>

National

Planning Policy Statement 5: Planning for the Historic Environment (PPS5) – Sites (Scheduled Monuments, Listed Buildings and in Conservation Areas) are protected within the planning system which was implemented in 2010. This gives principles for management of all archaeological resources.

☑ **Protection of Military Remains Act 1986** allows sites to be designated as War Graves, to prevent

interference with human remains. This applies to any UK vessel or aircraft, regardless of location, and foreign vessels in UK waters. It covers all vessels or aircraft lost in military service after 4th August 1914, even if locations are unknown and all military vessels and aircraft lost in service less than 200 years old. More information can be found at <http://www.legislation.gov.uk/ukpga/1986/35/introduction>

The Joint Nautical Archaeology Policy Committee (JNAPC) Code of Practice for Sea Bed Developers (voluntary)

in conjunction with other interested parties has drawn up a non-statutory code. It aims to ensure that an archaeological assessment and evaluation is carried out prior to development, so that archaeological sites can be protected or excavated. This was revised in 2008 and since then many changes have occurred with regards to seabed usage, legislation and understanding the marine environment. The new code builds on the principles set out in the original document. More information at http://www.jnapc.org.uk/jnapc_brochure_may_2006.pdf

Dorset

Dorset Historic Environmental Record (H.E.R). Sites are recorded and the Senior archaeologist advises local Planning Authorities on the archaeological implications of proposed developments, based on

the principles of *PPS 5*. Assisted by information in the H.E.R Local Plans give guidance on integrating development and archaeology.

the Ancient Monuments and Archaeological Areas Act 1979, On land, archaeological sites are protected by this act which empowers the government, through English Heritage, to schedule archaeological sites <http://www.legislation.gov.uk/ukpga/1979/46>

Planning Policy Statement 5 identifies how archaeological sites are to be treated in the planning process: this can require protection of sites, archaeological evaluation or excavation, as part of planning consent. This legislation, as well as the planning process, only applies above low water. Below this their place is taken by several, often very specific, pieces of legislation <http://www.communities.gov.uk/documents/planningandbuilding/pdf/1514132.pdf>

Merchant Shipping Act 1995 states that any material brought to the surface must be declared to the Receiver of Wreck. This involves researching ownership, liaising with owner/salvager and other interested parties such as archaeologists, enabling wreck material to be properly researched and recorded. More information can be found at the following sites: <http://www.legislation.gov.uk/ukpga/1995/21/contents> and <http://www.dft.gov.uk/mca/mcga07->

home/emergencyresponse/mcga-receiverofwreck.htm

The Protection of Wrecks Act 1973 enables the Government to designate the wreck of a vessel which it considers should be protected from unauthorised interference because of its historical, archaeological or artistic importance. More information at <http://www.legislation.gov.uk/ukpga/1973/33>

There are currently four protected wrecks off Dorset, the Studland Bay Wreck, Swash Channel Wreck, West Bay Wreck and HMS Formidable. Several other local wrecks have been adopted by dive clubs, this is a scheme organised by the Nautical Archaeological Society to encourage recreational divers to take an interest in particular wrecks. More information on this scheme can be found at <http://www.dorsetforyou.com/30581>

Coastal Defence and the Historical Environment: English Heritage Guidance 2003 provides advice to any persons involved in coastal planning and defence where the protection of historic remains becomes a concern with regards to shoreline management planning. More information can be found at: <http://www.english-heritage.org.uk/publications/coastal-defence-and-the-historic-environment/coastaldefenceeh.pdf>

Opportunities and Challenges

- **Coastal Erosion**

The potential damage to archaeological sites by coastal erosion can be easily seen at sites such as Golden Cap near Bridport. **Ploughing is an issue along the whole coastline with regards to not just barrows but many other archaeological site and landscapes.** Landslides are common along the Dorset coast and can have both positive and negative impacts. Landslides can cover up vital archaeological sites of interest but can also be an opportunity to uncover previously undiscovered sites. Less well understood is the potential for damage to underwater sites by the movement of the seabed. Whether such changes are natural, or caused by human activity elsewhere, is often unknown.

- **Diving**

Wrecks make very popular dive sites, with sport divers often being the ones to discover new wrecks, giving the potential to make an important contribution to the study of Dorset's underwater archaeology. However; a small minority of recreational divers regard a visit to a wreck as an opportunity to remove items of value or interest. This is a cause for concern since sites can be damaged, and objects removed without being recorded or properly conserved.

- **Fishing**

Heavy fishing gear, such as beam trawling, can potentially damage archaeological sites, but trawling

has also discovered many different sites or artefacts. 'Net Snags', sites where fishing nets are prone to catch, are frequently wrecks, and investigation of them has led to the finding of many unknown wrecks.

- **Development**

Development of the intertidal and marine areas has the potential to damage archaeological areas. Recently there have been moves to ensure the survival of archaeological sites, without seriously hampering necessary development. **The Government's Planning Policy Guidance Note 20: Coastal Planning** recognises the need to protect and enhance the archaeological coastal heritage. The voluntary *JNAPC Code of Practice for Seabed Developers* described above is recognised by the main groups of potential developers, including the Oil and Aggregates industry. Both *PPG 20* and the *JNAPC Code of Practice* identify the need for an archaeological assessment of an area prior to development.

Recording

In order to carry out an archaeological assessment, a well-maintained archaeological database is essential. This is the only way to identify areas of high archaeological potential, and so offer practical advice on what needs to be done. As part of the Dorset Coast Strategy, a database has been compiled which is compatible with that adopted by the established Hampshire and Isle of Wight Trust for

Maritime Archaeology. This will enable a consistent approach to be taken to archaeological recording.

The County Historic Environment Records centre aims to record all known sites of archaeological interest in Dorset. In 2004 the Wessex Archaeological conducted a rapid 'Rapid Coastal Zone Assessment' and along with the Maritime Archaeological Record has now been incorporated into the Dorset Historic Environment Records database. There are now approximately 1339 recorded maritime sites.

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